

AMENDMENTS TO THE CLAIMS

Claims 1-169 (Canceled)

170. (currently amended) A semiconductor component comprising:
a thinned semiconductor die having ~~an outline~~, a circuit side, a ~~planarized~~ back side, four peripheral edges, and a plurality of die contacts on the circuit side;
a plurality of contact bumps on the die contacts;
a ~~planarized~~ first polymer layer comprising a self planarizing thermoset underfill film covering the circuit side, ~~the contact bumps~~ and the peripheral edges, the first polymer layer having a first planar surface and edge polymer layers covering and rigidifying the peripheral edges; and
a ~~planarized~~ second polymer layer covering the back side having a second planar surface,
the first polymer layer and the second polymer layer encapsulating the die on six sides and supporting the die, the contact bumps and the peripheral edges.
~~such that the component has a chip scale outline corresponding to the outline of the die plus the edge polymer layers; and~~
~~a plurality of terminal contacts on the contact bumps.~~

171. (previously presented) The semiconductor component of claim 170 wherein the die comprises a tested and burned in die and the component comprises a known good component (KGC).

172. (currently amended) The semiconductor component of claim 170 wherein the underfill film cures and planarizes at a temperature of about 200-250 °C, has a Young's modulus of about 4G Pascal, and a coefficient of thermal expansion (CTE) of about 33 parts per million per °C.
~~contact bumps comprise metal bumps in a dense area array.~~

173. (currently amended) The semiconductor component of claim 170 wherein the second polymer layer comprises the underfill film.
~~terminal contacts comprise conductive bumps or balls in a grid array.~~

174. (currently amended) The semiconductor component of claim 170 wherein the first polymer layer and the second polymer layer have beveled edges.

~~first polymer layer and the contact bumps have a same planar surface.~~

175. (currently amended) The semiconductor component of claim 170 further comprising a plurality of terminal contacts on the contact bumps.
~~wherein the second polymer layer covers planarized edges of the edge polymer layers.~~

176. (currently amended) The semiconductor component of claim 170 wherein the first polymer layer has a thickness which is less than a height of the contact bumps and each contact bump is surrounded by a portion of the first polymer layer.
~~further comprising a plurality of conductive vias in the thinned die in electrical communication with the die contacts and with the terminal contacts.~~

177. (currently amended) The semiconductor component of claim 170 wherein the die includes conductive vias in electrical communication with the die contacts and the contact bumps.
~~176 further comprising a plurality of second die contacts on the second polymer layer in electrical communication with the conductive vias.~~

178. (currently amended) The semiconductor component of claim 170 wherein the die contacts comprise bond pads.
~~second polymer layer comprises a photopolymer.~~

179. (currently amended) The semiconductor component of claim 170 wherein the die contacts comprise redistribution pads.
~~second polymer layer comprises a wafer level underfill.~~

Claims 180-261 (canceled)

262. (currently amended) The semiconductor component of claim 170 wherein the die contacts comprise a solderable metal, and the contact bumps comprise solder.
~~contact bumps comprise planarized surfaces.~~

263. (currently amended) The semiconductor component of claim 170 further comprising a plurality of terminal contacts on the die in electrical communication with the contact bumps in a standardized grid array.
~~wherein the backside comprises a polished surface.~~

264. (currently amended) The semiconductor component of claim 170 further comprising a plurality of terminal contacts comprising ball bonds on the contact bumps.
~~wherein the second polymer layer comprises a tape material.~~

265. (previously presented) The semiconductor component of claim 170 wherein the first polymer layer on each edge comprises a portion of a polymer filled trench.

266. (previously presented) The semiconductor component of claim 170 wherein the edge polymer layers and the back side have a same planar surface.

267. (previously presented) The semiconductor component of claim 170 wherein the edge polymer layers have a selected thickness which is different than a thickness of the first polymer layer.

268. (currently amended) The semiconductor component of claim 170 wherein the ~~thinned~~ die comprises a tested and burned in die.

269. (currently amended) The semiconductor component of claim 170 wherein the ~~thinned~~ die is contained on a semiconductor wafer having a polymer support dam proximate to edges thereof.

270. (currently amended) The semiconductor component of claim 170 wherein ~~the first polymer layer comprises a first polymer material and~~ the second polymer layer comprises the underfill film, and the underfill film cures and planarizes at a temperature of about 200-250 °C, has a Young's modulus of about 4G Pascal, and a coefficient of thermal expansion (CTE) of about 33 parts per million per °C.
~~a second polymer material~~

271. (currently amended) The semiconductor component of claim 170 wherein the ~~first~~ second polymer layer comprises parylene.

Claim 272 (canceled)